## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

§ §

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In re Application of:

Yogisha Mallya et al.

Serial No.:

Unassigned

Filed:

Herewith

For:

METHOD AND SYSTEM FOR

**EXTRACTING MULTI-**

**DIMENSIONAL STRUCTURES** USING DYNAMIC CONSTRAINTS Group Art Unit:

Unassigned

Examiner:

Unassigned

Atty. Docket: 140314/YOD

GERD:0074/YOD

Mail Stop Patent Application Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313

NUMBER: DATE OF DEPOSIT: EXPRESS MAIL MAILING LABEL

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November 25, 2003

Pursuant to 37 C.F.R. § 1.10, I hereby certify that I am personally depositing this paper or fee with the U.S. Postal Service, "Express Mail Post Office to Addressee" service on the date indicated above in a sealed envelope (a) having the above-numbered Express Mail label and sufficient postage affixed, and (b) addressed to the Commissioner for Patents, Alexandria, VA 22313.

November 25, 2003

Date

Sir:

## INFORMATION DISCLOSURE STATEMENT PURSUANT TO 37 C.F.R. §§ 1.97(b) AND 1.98

In compliance with the duty of disclosure under 37 C.F.R. § 1.56(a), it is respectfully requested that this Information Disclosure Statement be entered and that the listed references be considered by the Examiner and made of record. Regarding copies of the listed references, the Patent Office has recently notified Applicants that:

> The Office hereby waives the requirement under 37 C.F.R. 1.98 (a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003 and for all international applications that have entered the national stage under 35 U.S.C. § 371 after June 30, 2003.

Accordingly, Applicants have not submitted copies of any U.S. Patents or any U.S. Patent Application Publications cited on the attached form PTO-1449.

Information Disclosure Statement
Page 2

In accordance with 37 C.F.R. § 1.97, this Information Disclosure Statement is not to be construed as a representation that a search has been made, as an admission that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b), or as a representation that no other possibly material information, as defined in 37 C.F.R. § 1.56(b), exists.

Furthermore, the references listed on the attached Form 1449 are not to be construed as an admission that these references qualify as prior art as to the above-referenced application or any related application. Rather, these references are being presented for the Examiner's consideration without prejudice to the right to demonstrate that any of these references do not qualify as prior art should the Examiner choose to apply any of these references.

The following information is listed below in accordance with 37 C.F.R. §1.98. Any explanation of non-English language documents contained in this Information Disclosure Statement is believed to constitute a concise explanation of the relevance of the listed reference as it is presently understood by the individual designated in § 1.56(c) most knowledgeable about the content of the listed reference, in accordance with 37 C.F.R. § 1.98(a)(3).

Respectfully submitted,

Date: November 25, 2003

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| Form PTO-1449 (modified)                                     | ATTY. DOCKET NO.         | SERIAL NO. |  |  |
|--|--------------------------|------------|--|--|
|  | 140314-1/YOD (GERD:0074) | Unassigned |  |  |
| List of Patents and Publications For Applicant's Information | APPLICANT                | APPLICANT  |  |  |
| Disclosure Statement   | Yogisha Mallya et al.    |            |  |  |
| (Use several sheets if necessary)                            | FILING DATE              | GROUP      |  |  |
|  | Herewith                 | Unassigned |  |  |

## **U.S. PATENT DOCUMENTS**

| EXAM.<br>INIT. | REF.<br>DES. | DOCUMENT<br>NUMBER | DATE     | NAME           | CLASS | SUB<br>CLASS | FILING DATE<br>IF APPROPRIATE |
|----------------|--------------|--------------------|----------|----------------|-------|--------------|-------------------------------|
|                | A1           | 5,570,404          | 10/29/96 | Liang et al.   | 378   | 8            | 09/30/94                      |
|                | A2           | 5,832,134          | 11/3/98  | Avinash et al. | 382   | 257          | 11/27/96                      |

| FOREIGN PATENT DOCUMENTS |              |                    |      |         |       |              |             |
|--------------------------|--------------|--------------------|------|---------|-------|--------------|-------------|
| EXAM.<br>INIT.           | REF.<br>DES. | DOCUMENT<br>NUMBER | DATE | COUNTRY | CLASS | SUB<br>CLASS | TRANSLATION |
|                          |              |                    |      |         |       |              |             |

| OTHER ART (Author, Title, Journal, Volume, Pertinent Pages, & Date) |   |  |  |  |  |
|---|---|--|--|--|--|
| C1  | Adams, Rolf, et al., Seeded Region Growing, IEEE Transactions on Pattern Analysis and Machine Intelligence, pages 641-647, 1994   |  |  |  |  |
| C2  | Alyassin, Abdalmajeid M., et al., Semi-automatic Bone Removal Technique from CT Angiographic Data, Proceedings of the SPIE - The International Society for Optical Engineering 2000, General Electric Research & Development Center, GE Medical Systems |  |  |  |  |
| СЗ  | Aylward et al., Systems and Methods for Tubular Object Processing, Publication No. US 2003/0053697 A1, Pub. Date: March 20, 2003  |  |  |  |  |
| C4  | Florent et al., Image Processing Method, System and Examination Apparatus for Extracting at Threadlike Structure in a Noisy Digital Image, U.S. Publication No. 2002/0054707 A1, Publication Date: May 9, 2002  |  |  |  |  |
| C5  | Hojjatoleslami, S. A., et al., Region Growing: A New Approach, IEEE Transactions on Image Processing, pages 1079-1084, 1998   |  |  |  |  |
| C6  | Kass, Michael, et al., Snakes: Active Contour Models, International Journal of Computer Vision, 1 (1987) 321-331  |  |  |  |  |
| C7  | Mullick, Rakesh, Method and Apparatus for Removing Obstructing Structures in CT, U.S. Patent Application Serial No. 10/301,018, Filed 11/21/02, General Electric Company  |  |  |  |  |
| C8  | Subramanyan, Krishna, Vessel Tracking and Tree Extraction Method and Apparatus, PCT application, International Publication No. WO 03/046835 A1, IP Publication date 5 June 2003   |  |  |  |  |
| C9  | Wink, O., et al., Fast Delineation and Visualization of Vessels in 3-D Angiographic Images, IEEE Transactions on Medical Imaging, Vol. 19, No. 4, April 2000  |  |  |  |  |

|        | C10 | Xu, Chenyang, et al., Snakes, Shapes, and Gradient Vector Flow, IEEE Transactions on Image Processing, Vol. 7, No. 3, March 1998, Pages 359-369 |  |  |
|--------|-----|---|--|--|
|        | C11 | Yim, Peter J., et al., Vessel Surface Reconstruction with A Tubular Deformable Model  |  |  |
| EXAMIN | ER  | DATE CONSIDERED   |  |  |

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Information Disclosure Statement--PTO-1449 (Modified)